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GUN RACK

INVENTOR:

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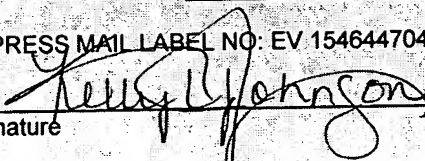
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[001] GUN RACK

[002] FIELD OF THE INVENTION

[003] This invention relates to gun racks, and more particularly to a rack for holding and displaying a firearm, for instance a rifle or shotgun, in a generally vertical orientation.

[004] BACKGROUND OF THE INVENTION

[005] The prior art includes a variety of gun racks configured for displaying or securing a firearm in various orientations. Typically, these devices display or otherwise secure the rifle or shotgun in a single orientation and do not permit for movement of the firearm while secured.

[006] Additionally, the prior art includes a variety of firearm locking assemblies including several that lock through the trigger guard as demonstrated by the lock and chain arrangement shown in U.S. Patent No. 4,461,385 to Clouser, and the cable and lock arrangement shown in U.S. Patent No. 5,263,592 issued to Dingee, Jr.

[007] It may be desirable to provide a gun rack that is configured to display and secure a rifle or shotgun in a selected orientation and which allows the rack to be pivoted about an axis so that the firearm may be stored, viewed or displayed from more than one angle. Additionally, it may be desirable to provide a locking assembly that may be integrated with gun rack in such a way as to permit a variety of firearms having a variety of lengths from the butt end of the stock to the trigger guard to be locked in a stored position.

[008] SUMMARY OF THE INVENTION

[009] The present invention is directed to a gun rack for holding a firearm including a stock and a barrel, the stock including a butt portion, the gun rack including a stock support assembly including a butt support member, the butt the

firearm positionable in and supportable by the butt support member and a barrel support assembly including a barrel clip for grasping placement about an outer perimeter of a barrel of the firearm..

[010] DESCRIPTION OF THE DRAWINGS

[011] Figure 1 is a representative perspective view of a gun rack according to one preferred embodiment of the present invention;

[012] Figure 2 is a representative perspective view of a gun rack according to one preferred embodiment of the present invention;

[013] Figure 3 is a representative top view of a gun rack according to one preferred embodiment of the present invention;

[014] Figure 4 is an exploded representative perspective view of a gun rack according to one preferred embodiment of the present invention;

[015] Figure 5 is a representative perspective view of a mounting bracket for a stock support assembly or a barrel support assembly for a gun rack according to one preferred embodiment of the present invention;

[016] Figure 6 is representative perspective view of a barrel clip for a gun rack according to one preferred embodiment of the present invention;

[017] Figure 7 is a representative perspective view of a stock support member for a gun rack according to one preferred embodiment of the present invention; and

[018] Figure 8 is a representative top view of a gun rack system according to one preferred embodiment of the present invention.

[019] DETAILED DESCRIPTION OF THE INVENTION

[020] Referring to Figures 1 through 3, a preferred embodiment of gun rack 10 is shown including barrel support assembly 20 and stock support assembly 30. In each view shown in Figures 1 through 3, firearm F is shown with butt end T positioned in and supported by butt support member 31 of gun rack 10. Barrel B is shown secured by barrel support assembly 20 and stock S is

shown supported by and secured in stock support assembly 30. Firearm F is secured to stock support assembly 30 by lock 50 which is inserted through opposing apertures formed in stock support assembly 30 and the trigger guard TG of firearm F. Figures 1 through 3 show barrel support assembly 20 pivotably connected to barrel support bracket 40A and Figures 1 and 2 show stock support assembly 30 pivotably connected to stock support bracket 40B. Barrel clip 21 is shown positioned about an outer perimeter of barrel B of firearm F with barrel clip 21 grasping an outer perimeter of barrel B.

[017] Figure 4 is an exploded representative perspective view of gun rack 10 according to one preferred embodiment of the present invention. Gun rack 10 is shown including barrel support assembly 20 and stock support assembly 30. Barrel support assembly 20 includes barrel clip 21 and barrel clip attachment portion 22. In the embodiment shown in Figure 4, barrel support assembly 20 is pivotably connectable to barrel support bracket 40A by means of pivot pin 41A.

[018] As see in Figure 4, stock support assembly 30 includes butt support member 31 from which first side stock support member 32 and second stock support member 33 are connected to and extend from. Stock support assembly 30 also includes rear stock retainer member 39 shown interconnecting first and second side stock support members 32 and 33. Apertures 34 and 35 are formed in the distal or upper ends of first side stock support member 32 and second stock support member 33. Lock 50 is insertable through apertures 34 and 35. As shown, apertures 34 and 35 are formed having oblong configurations to permit firearms having a variety of lengths from the butt end of the stock to the trigger guard to be locked in a stored position. Lock 50 includes pin 51, fixed end portion 52 and removable end portion 53 and as shown is a coupler style lock as shown generally in U.S. Patents 6,543,260 and 6,364,339.

[019] As see in Figure 4, stock support assembly 30 also includes stock support attachment portion 36 which is shown formed integrally to first side stock support member 32 and second stock support member 33. Stock support attachment portion 36 is pivotably connectable to stock support bracket 40B by means of pivot pin 41B. In the embodiment shown in Figure 4, barrel support assembly 20 and stock support assembly 30 are both pivotable on axis A.

[020] Referring to Figure 5, support bracket 40, which is typical of barrel support bracket 40A and stock support bracket 40B shown in Figure 4, is shown to advantage. As shown support bracket 40 includes back plate 42 to which top and bottom plates 43 and 44 respectively are connected to and perpendicularly extend. As shown top plate 43 includes aperture 47 and bottom plate 44 includes aperture 48 through which pivot pin 41 is passed to secure either barrel support assembly 20 or stock support assembly 30 to bracket 40, as shown in Figures 1 through 4. As shown support bracket 40 also includes first and second side flanges 45 and 46 respectively which connect to and perpendicularly extend from back plate 42. First and second side flanges 45 and 46 serve to limit the range of pivotable motion of either barrel support assembly 20 or stock support assembly 30 when attached to bracket 40, as shown in Figures 1 through 4. Attachment apertures 49A and 49B provide a location for inserting attachment hardware through back plate 42.

[021] Referring to Figure 6, barrel support assembly 20 is shown to advantage. As shown, barrel support assembly 20 includes barrel clip 21 and barrel clip attachment portion 22. Barrel clip 21 includes first and second opposing finger portions 23 and 24 which are connected to and extend from barrel clip attachment portion 22. In the preferred embodiment barrel support assembly 20, including barrel clip 21 and barrel clip attachment portion 22, is formed of a resilient polymeric material in an injection molding process, although the component may be otherwise manufactured for instance of a rubber or plastic coated spring steel. Barrel clip attachment portion 22 includes upper and lower attachment surfaces 25 and 26 respectively. Apertures 27 and 28 are formed in upper and lower attachment surfaces 25 and 26 respectively, providing a location for insertion of pin 41A as shown in Figure 4.

[022] Referring to Figure 7, stock support assembly 30 is shown to advantage. As shown, stock support assembly 30 includes butt support member 31 from which first side stock support member 32 and second stock support member 33 are connected to and extend from. In the embodiment shown, stock support assembly 30 also includes rear stock retainer member 39. Apertures 34 and 35 are formed in the distal or upper ends of first side stock support member

32 and second stock support member 33. Stock support assembly 30 also includes stock support attachment portion 36 which is shown formed integrally to first side stock support member 32 and second stock support member 33. Apertures 37 and 38 are formed in upper and lower surfaces of stock support attachment portion 36 providing a location for insertion of pin 41B as shown in Figure 4.

[023] Referring to Figure 8, gun rack system 100 is shown including a plurality of individual pivotable gun racks in this case depicted as 110A through 110D which are pivotably attached and interconnected by rack system upper base member 111 and rack system lower base member 112. Pivotable gun rack 110A, which is typical of pivotable gun racks 110A through 110D, is shown including barrel support assembly 120A and stock support assembly 130A. Firearm F is shown supported by and secured in gun rack 110A. More particularly, barrel B is shown secured by barrel support assembly 120A and stock S is shown supported by and secured in stock support assembly 130A. As shown, firearm F is shown with butt end T positioned in and supported by butt support member 131 of stock support assembly 130A by lock 150A which is inserted through opposing apertures formed in stock support assembly 130 and the trigger guard TG of firearm F. Barrel support assembly 120A is pivotably connected to barrel support bracket 140A and stock support assembly 130A is pivotably connected to stock support bracket 140B. Barrel clip 121 is shown positioned about an outer perimeter of barrel B of firearm F with barrel clip 121 grasping an outer perimeter of barrel B.

[024] Although the present invention has been described with reference to specific embodiments, those of skill in the art will recognize that changes may be made thereto without departing from the scope and spirit of the invention as defined by the appended claims.